

**REMARKS/ARGUMENTS**

In this reply, Claims 23-24, 26-29, and 37-39 are amended. Claims 40-50 are added.

Therefore, Claims 23-24, 26-29, and 37-50 are pending in the application. The amendments to the claims as indicated herein do not add any new matter to this application. Furthermore, amendments made to the claims as indicated herein have been made to exclusively improve readability and clarity of the claims and not for the purpose of overcoming alleged prior art.

**CLAIM OBJECTIONS**

**CLAIM 38**

Claim 38 was objected to as being dependent upon a rejected base claim. Claim 38 has been rewritten in independent form. Further, the language at issue, “wherein the machine-executed operation is at least one of,” has been removed, and the features of Claim 38 are not optional. Therefore, Claim 38 is presented in a form for allowance.

**NEW CLAIM 48**

New Claim 48 depends from Claim 38 and includes each limitation of Claim 38. Therefore, Claim 48 is believed to be in condition for allowance.

**CLAIM REJECTIONS**

**CLAIMS 23-24 & 26-29**

Claims 23 and 29 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 6,324,533 (“Agrawal”). Also, Claims 24 and 26-28 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Agrawal in view of High Performance Mining of Maximal Frequent Itemsets written by Gosta Grahne and Janfei Shu (“Grahne”). These rejections are respectfully traversed.

The Office Action stated that claims 23-24 and 26-29 would be allowable once the appropriate changes are made to claim 23. Regarding Claim 23, the Office Action stated, “the language in the claim’s preamble suggests that the prior art does not have to cover the aforementioned features in order to reject the entire claim.” The language at issue, “wherein the machine-executed operation is at least one of,” has been removed, and the features of Claim 23 are not optional. Accordingly, Claims 23-24 and 26-29 are presented in a form for allowance.

NEW CLAIMS 41-46

New Claims 41-46 depend from and contain each of the limitations of Claims 23-24 and 26-29, respectively. Therefore, Claims 41-46 are also believed to be in condition for allowance.

CLAIMS 37& 39

Claims 37 and 39 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Agrawal in view of U.S. Patent No. 6,513,029 (“Agrawal2”). This rejection is respectfully traversed.

It is believed that this rejection is based on confusion caused by the multiple definitions of the term “workload”. The term “workload” has many meanings, and the meaning that was used in Applicant’s specification is very different than the meaning that is used in Agrawal. To eliminate this confusion, Claims 37 and 39 have been revised to remove the source of the confusion (i.e. the term “workload”), and to instead state in plain English what the Specification means by “current workload”. Specifically, as is clear for the present Specification, the “current workload” of a computer system is simply **“how busy a computer system ... currently is”**. It is believed that this amendment eliminates any possibility of confusion, and puts all claims in condition for allowance.

Specifically, according to the method recited in Claim 37, an occurrence counting technique is selected, from a plurality of available occurrence counting techniques, to be used in a frequent itemset operation. The selection of the occurrence counting technique is based on conditions existing in the computing environment in which the frequent itemset operation is to be performed, before the frequent itemset operation is actually performed. Specifically, Claim 37 requires that **“the conditions include how busy a computer system in which the frequent itemset operation is to be performed currently is, and an amount of volatile memory available to store a candidate prefix tree.”** For example, occurrence counting technique A may be selected if the computer system is currently very busy (i.e. very busy at the time the technique is being selected), while occurrence counting technique B may be selected if the computer system is not currently very busy.

It has been recognized that *Agrawal* does not teach “dynamically selecting which occurrence counting technique to use from a plurality of available occurrence counting techniques based on conditions existing before the frequent itemset operation is performed in a computing environment in which the frequent itemset operation is to be performed”.

*Agrawal2*’s teaching regarding a “workload” does not teach or in any way suggest Claim 1’s additional feature of **“wherein the conditions include how busy a computer system in which the frequent itemset operation is to be performed currently is”**. Rather, *Agrawal2* specifically defines “workload” to be “a set of queries and updates which are run against a given database” (see *Agrawal* col. 2 ln. 39-40). The set of queries in *Agrawal2* is not the same as **“how busy a computer system currently is”**, as featured in Claim 1. For example, a computer system with a huge “workload” (by *Agrawal*’s definition) has a huge set of queries and updates that are

run against it. However, such a computer may have a very low current workload (by Applicant's definition) if few or none of those queries and updates are currently running on the computer.

On the other hand, a computer system with a small "workload" (by Agrawal's definition) may still have a very high current workload (by Applicant's definition) if the computer is currently being used to perform many operations (which operations may not necessarily have anything to do with queries or updates).

Furthermore, *Agrawal2* does not teach or suggest anywhere the **selection of occurrence counting techniques**. Rather, *Agrawal2* is concerned with the **selection of indexes and materialized views**. Therefore, *Agrawal2*, even if combined with *Agrawal*, would not teach "dynamically selecting which occurrence counting technique to use from a plurality of available occurrence counting techniques based on conditions existing before the frequent itemset operation is performed in a computing environment in which the frequent itemset operation is to be performed" (emphasis added).

As such, the combination of *Agrawal* and *Agrawal2* would not teach or suggest, to a person of ordinary skill in the art, all the features of Claim 37 at the time of the invention.

Claim 39 depends from Claim 37, and therefore, includes all of the limitations of Claim 37. It is therefore respectfully submitted that Claim 39 is patentable over the cited art for at least the reasons set forth herein with respect to Claim 37.

#### NEW CLAIMS 47 & 49-50

New Claims 47 and 49-50 depend from Claim 37, and therefore, include all of the limitations of Claim 37. It is therefore respectfully submitted that Claims 47 and 49-50 are patentable over the cited art for at least the reasons set forth herein with respect to Claim 37.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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